

First Alert®

Crank Powered Radio

With AM/FM/Short wave 1 & 2



User Manual for Model CR-100

sima

Sima Products Corporation

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90 Day Limited Warranty Sima Products Corporation

Limited Warranty

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Sima Products Corp.
Attn: Customer Service
140 Pennsylvania Ave. Bldg. #5
Oakmont, PA 15139

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Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

SAFETY WARNINGS

1. Do not drop and keep away from fire.
2. Do not use abrasive powders to clean the cabinet. Wipe it with a soft cloth moistened with a mild soap and water solution.
3. Do not leave the unit in a location near heat sources, or in a place subject to direct sunlight, excessive dust or mechanical shock.
4. Do not use old and new batteries together or different brands and types together.

Specifications

Frequency Range:

FM:	88-108	MHz
AM:	530-1600	KHz
SW1:	5.8 – 10.0	MHz
SW2:	11 – 22	MHz

Sensitivity

FM	< 5 uv
AM	< 1 mv/m
SW	< 50uv

Maximum output > 150 mW

Power: 3 way power –

Dynamo crank – 60 to 90 seconds = approx. 40-60 minutes operation

AA batteries - 3 AA alkaline batteries (not included),

AC/DC adaptor - 4.5 V, 80-100mA (optional)

Headphone: 3.5mm

Thank you for purchasing the First Alert® brand CR100 AM/FM/Shortwave Radio – a unique emergency radio. Its design allows it to be powered from two sources:

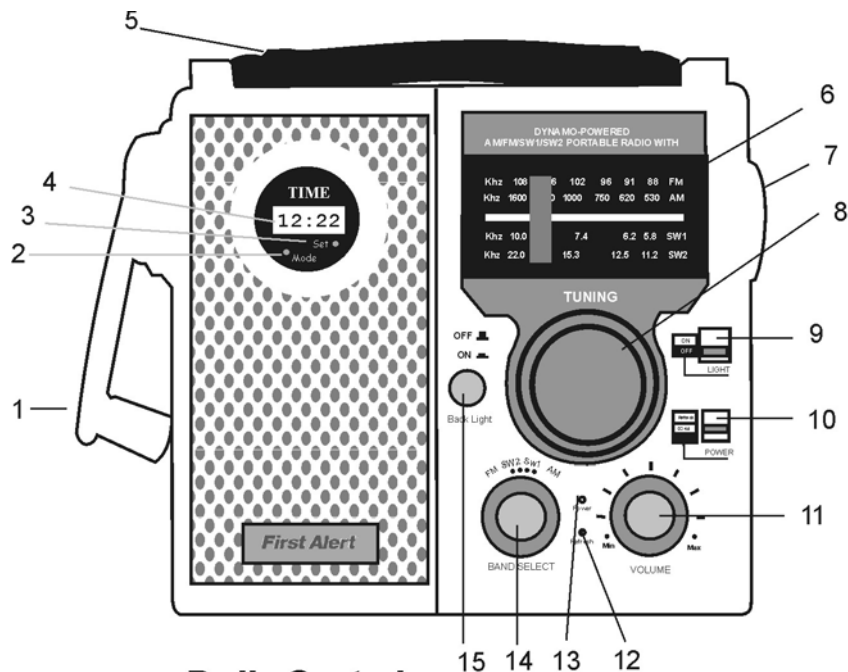
- dynamo crank /built-in rechargeable Ni-MH rechargeable battery
- 3 AA batteries

Features

The CR-100 is portable with many functions and features including:

- Receives AM, FM, and international shortwave broadcasts
- Receives continuous shortwave frequency coverage from 5.8-22 megahertz, which includes the 13, 16, 19, 22, 25, 31, 41, 49, 60, 75 and 90 meter band
- Operates on power from four different sources:
 - Built-in rechargeable Ni-MH rechargeable battery pack charged by the dynamo crank
 - 3 AA batteries
 - The dynamo crank alone, even with no battery pack installed
 - AC/DC adaptor (not included)
- Includes built-in emergency flashlight
- Month and time of day clock
- 2 built-in antennas: telescopic antenna for FM and shortwave, and internal ferrite bar antenna for AM

RADIO CONTROLS



Radio Controls

- | | |
|--------------------------|---------------------------------|
| 1. Dynamo crank | 9. Light ON/OFF |
| 2. 12/24 hour clock mode | 10. Power selection switch |
| 3. Clock set button | 11. Volume knob |
| 4. Time of day clock | 12. Charging indicator |
| 5. Carry strap | 13. Power indicator |
| 6. Tuning dial | 14. AM/FM/SW1/SW2 band selector |
| 7. Emergency light | 15. Backlight ON/OFF |
| 8. Tuning knob | |

HOW TO SET THE CLOCK

The clock on the CR-100 will display:

- the month and day
- the time of day
- the seconds

To set the clock,

1. Press the MODE button two (2) times. The clock will display the month. Press the SET button to select the desired month.
2. Press the MODE button again to display the day. Press the SET button to select the desired day.
3. Press the MODE button again to display the hour. Press the SET button to select the desired hour.
4. Press the MODE button again to display the minutes. Press the SET button to select the desired minutes.
5. Press the MODE button to exit the clock set-up menu.

Pressing the SET button once displays the month/day setting. Pressing the SET button twice displays the seconds. Press again to return to normal operation.

HOW TO USE THE EMERGENCY LIGHT

Set the LIGHT to the ON position. Note: using the light will drain the batteries and reduce battery life.

HOW TO USE THE EARPHONE JACK

Plug in a set of earphones of your choice that have a 1/8 inch mono or stereo plug. When using earphones, the built-in speaker will be switched off automatically. Note that stereo earphones will work and sound will be heard from both sides, although FM is not received in stereo.

POWER SOURCES

Dynamo Power Generation

A rechargeable Ni-MH (nickel-metal-hydride) battery pack is installed and fully charged at the factory. This battery pack is re-charged by turning the crank dynamo. The crank can be turned either clockwise or counter clockwise to generate power.

NOTE: Radio operation time depends on the number of turns and time per turn. On the average, 60-90 seconds of vigorous cranking results in about 40-60 minutes of radio play at low volume, without light use. Using the crank dynamo while the radio is playing does not charge as efficiently. If the light is on while playing the radio, the radio playtime will be dramatically reduced. The light will always result in the Ni-MH battery discharging at a faster rate.

Battery Operation – The CR-100 operates on 3 AA alkaline batteries. To install, please refer to instructions on page 6.

AC Adaptor - Plugging an AC adaptor into the DC 4.5 V socket on the back of the radio will provide power for operation and will charge the Ni-MH battery pack. Use only an AC Adaptor, that meets the following specifications:

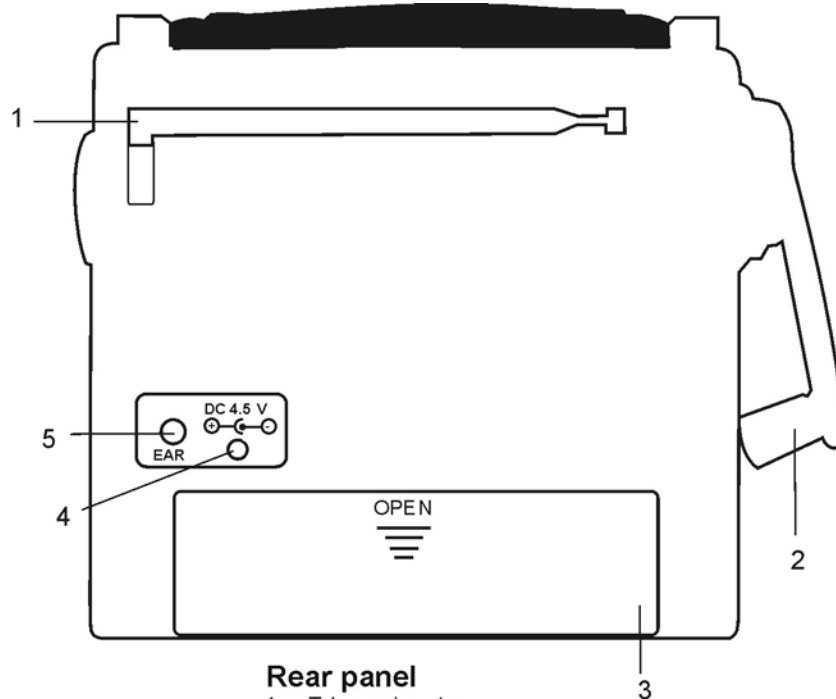
- Output of 4.5 volt DC; negative polarity;
- Minimum of 80-100 mA current capability;
- A plug tip with an outer diameter of 4.0 mm, inner diameter of 1.7 mm.

An AC Adaptor, as noted above, will charge the Ni-MH (nickel-metal-hydride) battery pack in the radio in approximately 8 hours, after which the adaptor can be left plugged in if desired and the battery will not overcharge.

NOTE: if an AC adaptor is in use, the AA batteries are switched off automatically. **The AC adapter is not included with the CR-100.**

IMPORTANT NOTE: Do not use an AC adapter rated higher than 80-100 milliamps. If using an AC adaptor to continuously power the radio, unplug the internal rechargeable battery. To play the radio, set the POWER SELECTOR switch to the REFRESH position. The Ni-MH battery pack will charge with the POWER SELECTOR switch set in any of its positions.

RADIO CONTROLS (cont)



Rear panel

1. Telescopic antenna
2. Dynamo power crank
3. Battery compartment
4. 4.5V AC/DC adapter input
5. Earphone jack

OPERATION

HOW TO INSTALL BATTERIES

This radio is designed to operate on three AA batteries (not included). Alkaline batteries should be used for longest playtime. Remove the cover by simultaneously pressing on the indentation labeled OPEN and pulling it down toward the bottom of the radio. Install the batteries by removing the battery compartment cover and following the battery diagrams on the bottom of the compartment. **NOTE:** if an AC adaptor is in use, the AA batteries are switched off automatically. Turn the radio on by setting the POWER SELECTOR switch to the REFRESH position.

The Ni-MH battery pack can also be charged by turning the dynamo crank following the instructions below:

1. Switch the power selector to the POWER OFF position.
2. Turn the dynamo-crank vigorously either clockwise or counterclockwise.

The green charging LED will be lighted during charging. This light will also illuminate when using the 4.5 V adapter.

HOW TO TURN THE RADIO ON AND OFF

Turn the radio on by setting the POWER SELECTOR switch to the REFRESH (Rechargeable battery pack) or DC 4.5V position (alkaline batteries) as desired. Turn it off by setting the POWER SELECTOR switch to the POWER OFF position. **NOTE:** if no power source is available, including the Ni-MH battery pack, the radio and the light can be operated by continually turning the dynamo crank. To do so, set the POWER SELECTOR switch to the REFRESH position.

OPERATION (CONT.)

HOW TO ADJUST THE VOLUME

Turn the VOLUME control knob until the desired volume level is heard.

HOW TO TUNE-IN STATIONS

Set the band selector rotary switch to the FM, AM, SW1, or SW2 position. Tune stations in with the TUNING knob. For best FM and shortwave reception, fully extend the telescopic antenna. FM reception can often be improved by rotating the telescopic antenna. For AM reception, the telescopic antenna need not be extended, as the AM antenna is an internal, directional, ferrite bar antenna. For best AM reception, rotate the radio until the best signal strength is achieved. See the next section for how to optimize shortwave reception.

HOW TO OPTIMIZE SHORTWAVE RECEPTION

Being aware of the following information will help you get the best results listening to shortwave.

- Shortwave reception is best around sunrise, sunset, and at night
- Nighttime shortwave reception is usually superior to day shortwave
- During the day, frequencies above 13 MHz are usually best
- At night, frequencies below 13 MHz are usually best
- Around sunset and sunrise, the entire shortwave range may be good
- Getting very close to a window improves shortwave reception